CATTTGGAAG-3': (SEQ ID NO:66)], which was designed to locate the FLAG sequence (Asp-Tyr-Lys-Asp-Asp-Asp-Asp-Lys) (SEQ ID NO:71); and subsequently the end codon as well as the recognition site for the restriction enzyme Xho I in this sequence order, and the synthetic DNA [5'-TCGGAATTCACCATGAAACTCCTGCTGCTGGCTCTT-3' : (SEQ ID NO:65)] having the recognition site for the restriction enzyme Eco RI immediately before the translation start codon initiator, by using the cDNA fragment encoding TGC-711 protein obtained in EXAMPLE 9 as a template. The PCR reaction was performed according to the following program, with use of Pyrobest DNA Polymerase (Takara); namely the reaction mixture was placed at 94°C for 1 minute, then at 98°C for 10 seconds, at 55°C for 30 seconds and at 72°C for 30 seconds; this cycle was repeated 25 times in total. Finally, extension reaction at 72°C for 10 minutes was performed to obtain the DNA fragment containing the ORF of TGC-714. The resultant DNA fragment was cleaved with the restriction enzyme Eco RI and Xho I, followed by insertion of them into Eco RI/Xho I sites in pCAN618 to obtain the expression vector for TGC-714 protein, or pCAN618/TGC-714FLAG for animal cells.

Please **substitute** for the previously submitted paper, copy of the Sequence Listing (pages 1/35 – 35/35), **new** pages 74-98 and insert these at the last page of the specification (page 73).

REMARKS

A Submission in response to the Notification of Defective Response mailed January 25, 2002 was filed with the United States Patent Office on March 25, 2002. Upon review of the March 25, 2002 amendment, it was apparent that the amendment, although fulfilling the requirements of the Notification of Defective Response, may not be deemed to comply with the changes to the rules regarding formatting of amendments. Thus, applicants respectfully submit this "SUBSTITUTE AMENDMENT and SUBMISSION OF CORRECTED SEQUENCE LISTING IN RESPONSE TO

NOTIFICATION OF DEFECTIVE RESPONSE". The substance of this amendment is identical to that previously submitted, but merely present the amendments to the specification in a different form. Thus, Applicants respectfully submit that the Response was timely filed. However, if the Commissioner determines that one month extension of time is appropriate, please consider this a petition therefore and charge any necessary fees to Deposit Account No. 04-1105.

The Communication dated January 25, 2002 indicated that the Sequence Listing submitted November 20, 2001, did not comply with the requirements of 37 CFR 1.822 and/or 1.823. This amendment is submitted to correct the Sequence Listing as indicated on the Raw Sequence Listing Error Report. No new matter is added by this amendment.

Applicants hereby submit a paper copy of a corrected Sequence Listing. Also enclosed is a Computer Readable Form (CRF) of the corrected Sequence Listing. The CRF is the same as the paper copy of the corrected Sequence Listing.

Also enclosed is a "Statement in Support of Filing and Submissions In Accordance With 37 CFR 1.821-1.825", in which I declare that the content of the paper and the computer-readable copies of the Sequence Listing submitted in accordance with 37 CRF 1.821 (c) and (e), respectively, are the same and that the submission, filed in accordance with 37 CFR 1.821 (g) does not introduce new matter.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Applicants respectfully submit that the above amendment provides a complete response and corrects all formal matters and allowance is therefore appropriate.

Respectfully submitted,

Date: April 25, 2002
BOS2_299424.1

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VERSION WITH MARKINGS SHOWING CHANGES

IN THE SPECIFICATION

Please amend the specification as follows:

Please amend the paragraph beginning on page 58, line 23 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:16, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGGCCAAGTACCTGGCCCAGATCA (SEQ ID NO:31); and TCACGTATGGGGCATCTGCCCTTTT) (SEQ ID NO:32); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., brain, testis, heart, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. In detail, the solution 50 μl containing 5 pmol of the each primer, 5 μl of 100 mM Tris-HC1 buffer (pH9.0), 5 μl of 500 mM potassium chloride solution, 3 μl of 25 mM magnesium chloride solution, 4 μl of 2.5 mM deoxyribonucleotide solution, 1 μl of cDNA solution, and 0.5 μl of TaKaRa Tag™ was prepared. The PCR reaction was performed according to the following program, namely, the resultant solution was placed at 95°C for 1 minute in TaKaRa PCR Thermal Cycler MP (Takara shuzo Co., Ltd.), then at 95°C for 30 seconds, at 65°C for 1 minute and at 72°C for 2 minutes; this cycle was repeated 35 times in total and further reacted at 72°C for 10 minutes to obtain the target PCR fragment.

Please amend the paragraph beginning on page 59, line 15 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO: 17, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGCACAGATCAGAGCCATTTCTGA (SEQ ID NO:33); and TTACAGTAGTGGCAGTAACACTTGG) (SEQ ID NO:34); were prepared, followed by

employment of the cDNA library of the above-stated tissues (e.g., dpididymis, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 60, line 1 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:18, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGAAGTTCGTCCCCTGCCTCCTGC (SEQ ID NO:35); and TCACCCTCGGAAGAAGCTGATGAGA) (SEQ ID NO:36); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., spinal cord, T cells, retina, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 60, line 21 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:19, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGGGACCTGTGCGGTTGGGAATAT (SEQ ID NO:37); and TCAAAGATCTTCTCGGTCAAGTTTG) (SEQ ID NO:38); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., cerebellum, adrenal, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 61, line 6 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:20, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGTTTTGCCCACTGAAACTCATCC (SEQ ID NO:39); and TCATGAAAATATCCATTCTACCTTG) (SEQ ID NO:40); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., dendritic cells, T cells, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 61, line 26 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:21, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGGAACTGCTTCAAGTGAC CATTC (SEQ ID NO:41); and TCAGTTCTTGGTTTTTCCTTGTGCA) (SEQ ID NO:42); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., vascular endothelial cells, bone marrow, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 61, line 11 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:22, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGCGACCCCAGGGCCCCGCCGCCT (SEQ ID NO:43); and TTATTTTGGTAGTTCTTCAATAAT G) (SEQ ID NO:44); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., thymus, placenta, etc.) or RT-PCR with use of mRNA derived from the aforementioned

tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 62, line 31 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:23, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGAAGTTACAGTGTGTTfCCCTTT (SEQ ID NO:45); and TCAGGAGGCCGATGGGGGCCAGCAC) (SEQ ID NO:46); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., monocytes, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 63, line 16 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other- words, using the base sequence as described in SEQ ID NO:24, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGGCCAGCCTGGGGCTGCTGCTCC (SEQ ID NO:47); and TCATGAGGCTCCTGCAGAGGTCTGA) (SEQ ID NO:48); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., cerebellum, lung, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 64, line 1 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:25, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGAAACTCCTGCTGCTGGCTCTTC (SEQ ID NO:49); and

TCATGAGCTATGGTGAACATTTGGA) (SEQ ID NO:50); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., epididymis, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 64, line 21 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:26, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGGGCGGCCTGCTGCTGGCTGCTT (SEQ ID NO:51); and CTACTGTGACAGGAAGCCCAGGCTC) (SEQ ID NO:52); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., epididymis, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 65, line 7 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:27, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGGCCCGGCATGGGTTACCGCTGC (SEQ ID NO:53); and TTACAGCTCCCCTGGCGGCCGGCCT) (SEQ ID NO:54); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., T cells, placenta, liver, large intestine, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 65, line 27 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:28, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGTGCTGGCTGCGGGCATGGGGCC (SEQ ID NO:55); and TTATCTATTCATCATATATTTCTTA) (SEQ ID NO:56); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., testis, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 66, line 11 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID NO:29, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGGGGTTCCCGGCCGCGGCGCTGC (SEQ ID NO:57); and CTACGCCGAGACCGTGGGCCTGCGG) (SEQ ID NO:58); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., pancreas, placenta, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 66, line 31 as follows:

The cDNA fragment could be obtained by conventional methods, based on the above information. In other words, using the base sequence as described in SEQ ID N0:30, the primers for PCR corresponding to 5' end and 3' end (e.g., ATGCGAGGTGGCAAATGCAACATGC (SEQ ID NO:59); and TCATAAACTTGTGTTGGGCTTTAGG) (SEQ ID NO:60); were prepared, followed by employment of the cDNA library of the above-stated tissues (e.g., placenta, etc.) or RT-PCR with use of mRNA derived from the aforementioned tissues as a template to

obtain the cDNA fragment. The reaction conditions to be applied to PCR were those as described in EXAMPLE 1.

Please amend the paragraph beginning on page 67, line 11 as follows:

First of all, the PCR was performed by using the synthetic DNA [5'-ACGCTCGAGTTACTTGTCATCGTCGTCCTTGTAGTCCGTATGGGGCATCT GCCCTTTTTC-3' : (SEQ ID NO:62)], which was designed to locate the synthetic DNA [5'-TCGGAATTCGCCATGGCCAAGTACCTGGCCCAGATC -3' : (SEQ ID NO:61)] having the recognition site for the restriction enzyme Eco RI immediately before the translation start codon initiator, the FLAG sequence consisting of 8 amino acids (Asp-Tyr-Lys-Asp-Asp-Asp-Asp-Lys) (SEQ ID NO:71); at C-terminus of the TGC-480 protein, and subsequent stop codon and the recognition site for the restriction enzyme Xho I, by using the cDNA fragment encoding the TGC-480 protein obtained in EXAMPLE 1 as a template. The PCR reaction was performed according the following program, with use of Pyrobest DNA Polymerase (Takara Shuzo Co.,. Ltd.); namely, the reaction mixture was placed at 94°C for 1 minute, then at 98°C for 10 seconds, at 60°C for 30 seconds and at 72°C for 1 minute; this cycle was repeated 25 times in total. Finally, extension reaction at 72°C for 10 minutes was performed to obtain the DNA fragment containing the ORF of TGC-480. The resultant DNA fragment was cleaved with the restriction enzyme Eco RI and Xho 1, followed by insertion of them into Eco RI/Xho I sites in pCAN618 to obtain the expression vector for TGC-480 protein, pCAN618/TGC-480FLAG for animal cells.

Please amend the paragraph beginning on page 68, line 13 as follows:

The expression vector to express TGC-623 product in animal cells was obtained by insertion of the DNA fragment containing ORF encoding the TGC-623 product into the expression vector pCAN618FLAG for animal cells. pCAN618FLAg was derived from the plasmid vector pCAN618, and pCAN618FLAG can express the target protein as the FLAG fused protein, by coinciding the reading frame of the base sequence encoding the FLAG sequence for 8 amino acids existing

immediately after Sal I site (Asp-Tyr-Lys-Asp-Asp-Asp-Asp-Lys) (SEQ ID NO:71); to the end codon.

Please amend the paragraph beginning on page 69, line 10 as follows:

First of all, the PCR was performed by using the synthetic DNA [5'-ACGCTCGAGTTACTTGTCATCGTCGTCCTTGTAGTCTGAGGCTCCTGCAG AGGTCTGAGA-3': (SEQ ID NO:64)], which was designed to locate the FLAG sequence (Asp-Tyr-Lys-Asp-Asp-Asp-Asp-Lys) (SEQ ID NO:71); and subsequently the end codon as well as the recognition site for the restriction enzyme Xho I in this sequence order, and the synthetic DNA [5'-TCGGAATTCGCCATGGCCAGCCTGGGGCTGCTGCTC -3': (SEQ ID NO:63)] having as a template the recognition site for the restriction enzyme Eco RI immediately before the translation start codon initiator, by using the cDNA fragment encoding TGC-711 protein obtained in EXAMPLE 9 as a template. The PCR reaction and subsequent treatments were performed under the similar conditions as those in EXAMPLE 16, to obtain the expression vector for human TGC-711 protein, or pCAN618/TGC-711 FLAG for animal cells. This expression vector was introduced into COS7 cells in the similar manners for those in EXAMPLE 16, and the culture supernatant was prepared, thereby being used for performing the Western Blot analysis. As the result, it was revealed that TGC-711 protein was secreted into the culture supernatant (Fig. 1).

Please amend the paragraph beginning on page 69, line 10 as follows:

First of all, the PCR was performed by using the synthetic DNA [5'-ACGCTCGAGTTACTTGTCATCGTCGTCCTTGTAGTCTGAGCTATGGTGAA CATTTGGAAG-3': (SEQ ID NO:66)], which was designed to locate the FLAG sequence (Asp-Tyr-Lys-Asp-Asp-Asp-Asp-Lys) (SEQ ID NO:71); and subsequently the end codon as well as the recognition site for the restriction enzyme Xho I in this sequence order, and the synthetic DNA [5'-TCGGAATTCACCATGAAACTCCTGCTGCTGGCTCTT-3' : (SEQ ID NO:65)] having the

recognition site for the restriction enzyme Eco RI immediately before the translation start codon initiator, by using the cDNA fragment encoding TGC-711 protein obtained in EXAMPLE 9 as a template. The PCR reaction was performed according to the following program, with use of Pyrobest DNA Polymerase (Takara); namely the reaction mixture was placed at 94°C for 1 minute, then at 98°C for 10 seconds, at 55°C for 30 seconds and at 72°C for 30 seconds; this cycle was repeated 25 times in total. Finally, extension reaction at 72°C for 10 minutes was performed to obtain the DNA fragment containing the ORF of TGC-714. The resultant DNA fragment was cleaved with the restriction enzyme Eco RI and Xho I, followed by insertion of them into Eco RI/Xho I sites in pCAN618 to obtain the expression vector for TGC-714 protein, or pCAN618/TGC-714FLAG for animal cells.

Please **substitute** for the previously submitted paper, copy of the Sequence Listing (pages 1/35 – 35/35), **new** pages 74-98 and insert these at the last page of the specification (page 73).